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and Amend. 2, 12/4/80

# DEPARTMENT OF TRANSPORTATION

## FEDERAL AVIATION ADMINISTRATION

### SPECIFICATION

#### PROVISIONING TECHNICAL DOCUMENTATION

#### 1. SCOPE

1.1 Scope. - This specification describes the range of Provisioning Technical Documentation that may be required for the initial provisioning process. It provides detailed instructions covering the format, content and procedures for the preparation and timely submission of such documentation as may be specified by the contract or order.

#### 2. APPLICABLE DOCUMENTS

2.1 Military Standards and Specifications. - The following Military Standards and Specifications, of the issue in effect on the date of the invitation for bids or request for proposals, form a part of this specification and are applicable to the extent specified herein:

MIL-STD-12	Abbreviations for Use on Drawings, Specifications Standards and in Technical Documents.
DOD-STD-100	Engineering Drawing Practices
MIL-STD-275	Printed Wiring for Electronic Equipment
MIL-STD-429	Printed-Wiring and Printed-Circuits Terms and Definitions
MIL-STD-470	Maintainability Program Requirements

MIL-STD-785	Reliability Program for Systems and Equipment Development and Production
MIL-STD-804	Format and Coding of Tabulating and Aperture Cards for Engineering Data Micro-Reproduction System
DOD-D-1000	Drawings, Engineering and Associated Lists
MIL-D-8510	Drawings, Undimensioned, Reproducible, Photographic and Contact, Preparation of
MIL-P-84000	Provisioning Screening Data to be Furnished by Government Suppliers
MIL-M-9868	Microfilming of Engineering Documents, 35MM, Requirements for
MIL-C-9878	Cards, Aperture, Copy and Tabulating for Engineering Data Micro-Reproduction Systems, Preparation of
MIL-C-9949	Cards, Copy

To obtain a copy of these standards or specifications, mail requests directly to the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pa. 19120.

2.2 American National Standards Institute Publication. - The following publication, of the issue in effect on the date of the invitation for bids or request for proposals, form a part of this specification and is applicable to the extent specified herein.

ANSI Y32.16	Reference Designation for Electrical and Electronics Parts and Equipments.
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Application for copies should be addressed to United States of America Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

2.3 Federal Standards and Specifications. - The following Federal Standards and Specifications, of the issue in effect on the date of the invitation for bids or request for proposals, form a part of this specification and are applicable to the extent specified herein.

FED-STD- No. 5	Standard Guides for Preparation of Proposed Item Logistics Data Records and Proposed Item Identifications by Government Suppliers.
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L-F-340	Film, Diazotype, Sensitized; Moist and Dry Process; Roll and Sheet.
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Information on obtaining copies of Federal specifications and standards may be obtained from General Services Administration Offices in Atlanta; Auburn, Wash.; Boston; Chicago; Denver; Fort Worth; Kansas City, Mo.; Los Angeles; New Orleans; New York; Philadelphia; San Francisco; and Washington D.C.

2.4 Other Publications. - The following publications, of the issue in effect on the date of the invitation for bids or request for proposals, form a part of this specification and are applicable to the extent specified herein:

H4-1 and Federal Supply Code for Manufacturers  
H4-2

H6 Federal Item Name Directory for Supply Cataloging

DOD 4100.38M Provisioning and Other Preprocurement Screening Manual

These publications can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The Federal Supply Code for Manufacturers and the Federal Item Name Directory for Supply Cataloging publications are issued on the microfiche and microfiche reader equipment with 48x capability is required to retrieve the microimage information.

### 3. REQUIREMENTS

3.1 Definitions.- For the purpose of this specification, the following definitions shall apply.

3.1.1 Assembly.- A number of parts or subassemblies, or any combination thereof, joined together to perform a specific function and capable of disassembly.

3.1.2 Attaching Part.- An item used to attach assemblies or parts to the equipment or to each other.

3.1.3 Days.- In the absence of specific language to the contrary, calendar days are to be used whenever a number of days is specified.

3.1.4 Drawings.- Graphic data, graphs, diagrams, and industry standards and specifications in accordance with MIL-STD-100 and DOD-D-1000, in or on which details are represented with sufficient information to define completely, directly or by reference, the end result in the procurement or manufacture of the item required.

3.1.5 End Article.- The final combination of end products, component parts, or materials which is ready for its intended use, for example, system, unit, aircraft, or vehicle.

3.1.6 Federal Supply Code for Manufacturers.- A five-digit numeric code which identifies the manufacturer of an item. Assigned codes are contained in Cataloging Handbooks H4-1 and H4-2.

3.1.7 Group.- A collection of units, assemblies, or subassemblies which is a subdivision of a set or system but which is not capable of performing a complete operational function, for example, Indicator Group, Anetnna Group, Video Mapping Group.

3.1.8 Item.- The term item is used in this specification to denote any level of hardware such as a part, subassembly, assembly, unit, group, set, subsystem, or system. The term also applies to tools and test equipment.

3.1.9 Item Identification.- An Item Identification consists of data adequate to establish directly or indirectly the essential characteristics of an item which give the item its unique character and make it what it is and to differentiate it from every other item of supply used by the Federal Government. See FED-STD-No.5.

3.1.10 Item Logistics Data Record.- Logistics data, prepared in accordance with Federal Identification Guides, which establish the unique character of an item of supply and also includes supplementary technical and supply management data. See FED-STD-No.5.

3.1.11 Item Name.- The item name for an item of supply is that name which has been selected, and delimited where necessary, to establish a basic concept of the item or of the group of related items of supply to which the item belongs and with which it should be compared. There are two kinds of items names: (1) Approved Item Name, and (2) Non-Approved Item Name.

- (1) Approved Item Name - a name approved by the Directorate of Item Identification, Defense Logistics Services Center (DLSC) as the official designation for an item of supply and published in the Alphabetic Index of Names Section of the Federal Item Name Directory for Supply Cataloging (H6).
- (2) Non-Approved Item Name - a name applied by a Government activity or by a manufacturer when no approved item name exists.

3.1.12 Long Lead-Time Items.- Those items which, because of their complexity of design, complicated manufacturing processes, or limited production capacity, may cause production or procurement cycles which would preclude timely and adequate delivery by the contractor if not ordered early in the end article production cycle. Any item whose procurement cycle is six months or more is considered a long lead-time item.

3.1.13 Long Lead-Time Items List.- A listing containing that information required to provision long lead-time items, prepared in the same format as specified for provisioning lists.

3.1.14 Modular Assembly or Module.- A combination of components, contained in one package or so arranged that together they are common to one mounting, which provides a complete function or functions to the subsystem in which it operates.

3.1.15 Part.- One piece, or two or more pieces joined together, which are not normally subject to disassembly without destruction of designed use.

3.1.16 Part Common.- An item which is routinely and ordinarily obtainable from one or more sources, including the prime contractor at the time of contract award, and is recurringly manufactured, fabricated or assembled for common use to Government, industry or commercial specification, drawing or standard.

3.1.17 Part-Peculiar.- Any item which does not meet the definition of part common and is designed, developed, assembled or fabricated by the contractor or his vendor specifically for use with the end article being procured. The item was not listed explicitly in a published vendor's or suppliers catalog or was not readily available as a bona fide established stock item at the time the contract or order was placed. A part common which has been modified in any way to accommodate a new environment shall also be considered a part-peculiar. A part common which has been selected for a tighter tolerance than a routine production tolerance, such as transistor or integrated circuit, either by the contractor or by the contractor's purchase specification to a vendor, and parts common that have been selected to be used as a matched pair or set shall be considered as parts-peculiar.

3.1.18 Part Number.- A contractor, vendor, government, or manufacturer's drawing or reference number which provides positive identification without further reference to specific parts lists, model numbers, symbol numbers, special coding or any other additional data when used in combination with the Federal Supply Code for Manufacture.

3.1.19 Provisioning.- The process of determining the range and quantity of parts, subassemblies, assemblies, units, special tools and test equipment, soft consumable items and the delivery scheduling of such, for the support and maintenance of an end article. It also includes the determination of provisioning documentation requirements, methods and actions required to assure availability of spares and the method of providing logistics support.

3.1.20 Provisioning Conference.- A meeting of the FAA's provisioning team and contractor's representatives for the purpose of establishing the FAA's logistics support requirements for the end articles on contract or order.

3.1.21 Provisioning Parts List.- A listing which includes the end article and reflects all parts, subassemblies and assemblies that can be removed without destruction of the item to which they are attached.

3.1.22 Provisioning Screening.- The process of screening manufacturer's part numbers against the Defense Logistics Services Center (DLSC) central files by the use of Electronic Data Processing Equipment (EDPE) for the purpose of revealing National Stock Numbers (NSNs).

3.1.23 Provisioning Technical Documentation Requirements Conference.- A meeting of the FAA provisioning representative and the contractor on an as required basis to exchange information leading to a mutual interpretation and understanding of the requirements, procedures, and schedules imposed by the contract or order for provisioning technical documentation.

3.1.24 Provisioning Technical Documentation.- That documentation furnished by contractors for the purpose of identification, determination of spares requirements, cataloging and contractual formalization of items to be procured through the provisioning process. As used in this specification, provisioning technical documentation includes, but is not limited to, provisioning lists, associated drawings, item identifications and master patterns, as specified in the contract or order. See paragraph 3.4.

3.1.25 Reference Symbol Number.- A combination of letters and numbers which identifies parts, subassemblies, assemblies and units of a set on equipment diagrams, drawings, parts lists and instruction books in accordance with ANSI Y32.16.

3.1.26 Reparable Item.- An item of durable nature which, when unserviceable, normally can be economically repaired or reconditioned for reuse.

3.1.27 Set.- A unit or units and necessary assemblies, subassemblies and parts connected or associated together to perform an operational function, for example, Receiver Set, Radio Transmitting Set. These include such parts, assemblies and units as cables and microphones. Set as used to denote a collection of like parts, such as a tool set or a spare set, is not included in this definition.

3.1.28 Soft Consumable Items List.- A listing of the soft consumable items such as lubricants, sealants, hydraulic fluids, adhesives, gases, greases and paper, use in support of the end article, and prepared in the same format prescribed for provisioning lists.

3.1.29 Spare.- Any part, subassembly, assembly or unit identical to that used with or in the end article.

3.1.30 Standard Mechanical Hardware.- Unmodified items of hardware such as nuts, bolts, screws and similar parts, for which complete descriptive information is obtainable from Federal Specifications, Military or Commercial Standards.

3.1.31 Subassembly.- Two or more parts which form a portion of an assembly or a unit replaceable as a whole but having a part or parts which are individually replaceable.

3.1.32 System.- One or more assemblies necessary to perform an operational function or functions, for example, Telephone Carrier System. A system may include one or more sets.

3.1.33 Test Equipment.- Electronic, electrical, mechanical, physical or optical instruments, both common and specially designed, necessary for servicing, testing, adjusting and maintaining the end article.

- (1) Special - Test equipment designed and developed by the prime contractor or his vendors to perform a specific operation on specific pieces of materiel, and which are necessary for servicing, testing, adjusting, and maintaining the end article.
- (2) Common - That test equipment which is not covered in the definition of special.

3.1.34 Test Equipment List.- A two-part listing which includes special test equipment and common test equipment necessary for servicing, testing, adjusting, and maintaining the end article.

3.1.35 Tools.- Implements, electrical or manual, including jigs, alignment fixtures and similar devices, both special and common, required for installation, servicing, testing, adjusting, and maintaining the end article.

- (1) Special - Tools designed and developed by the contractor or his vendors to perform a specific operation on special pieces of materiel and which are necessary to the installation, servicing, testing, adjusting and maintaining of the end article.
- (2) Common - Those tools which are not covered in the definition of special.

3.1.36 Tool List.- A listing of all tools, special and common, necessary for servicing, testing, adjusting, maintaining the end article.

3.1.37 Top-Down Breakdown.- A listing method by which units, groups, and sets, of a system or end article at whatever level, will be listed in individual sections of the provisioning lists. Within each section, each item will be listed in its relation to the next higher level item in which it is contained. See paragraph 3.21.2.4.

3.1.38 Unit.- A major building block for a group, set or system consisting of a collection of basic parts, subassemblies and assemblies mounted together on a single chassis, or packaged together as a physically independent entity. When designed to FAA specification, each unit is assigned an identifying FAA Type Designation which is included on the serially-numbered nameplate that is affixed, for example, Amplifier, FA-5238; STALO Power Supply, FA-6033; Anetnna Pedestal, FA-4703; Carrier Modulator, FA-5317. Note: This definition expands but does not modify that which is included in ANSI Y32.16.

3.1.39 Vendor Item.- An item procured by the contractor from a manufacturer or supplier and incorporated into the end article exactly as procured.

3.2 Provisioning Technical Documentation Requirements.- This specification describes the range of provisioning technical documentation that may be required for any end article contract or order. Due to the variations of supply support requirements among end articles, specific provisioning technical documentation requirements will not be included in the end article specification but will be stated in the Invitation for Bid, Request for Proposal, or Request for Quotation. The contract or order will identify the specific documentation, if any, that the contractor shall be required to provide. Unless otherwise specified in the contract or order, the provisioning technical documentation shall be developed, prepared, processed, and furnished the FAA in accordance with the instructions and formats contained herein. These requirements shall be applicable to both preparation and production items unless stated otherwise in the contract or order.

3.3 Scheduling Documentation Delivery.- Documentation delivery schedules, adherence to which is essential to timely provisioning actions, will be specified in the contract or order.

3.3.1 Scheduling Documentation in Increments.- Provisioning Technical Documentation shall be submitted by complete contract end article unless in the contractor's opinion in order to meet the delivery requirements of the spares to support the end article, it necessarily must be submitted in increments. Partial submittals, when such action is specifically authorized by the FAA Contracting Officer, at the contractor's request, shall be limited to the functional levels of the system, for example, set, group, or unit, as applicable. Authorized partial submittals do no relieve the contractor of the responsibility for providing a single numerical parts list for the complete contract end article.

3.3.2 Provisioning Technical Documentation Requirements Conference.- If guidance in the preparation of the documentation is requested of the FAA by the contractor, arrangements will be made for provisioning technical documentation requirements conference to be held no later than thirty (30) days following contract award. The meeting will be held at the FAA Aeronautical Center, Oklahoma City, Oklahoma, unless it is determined by the FAA to be in the best interest of the Government to convene the meeting at the contractor's plant, or other location.

3.4 Checklist of Provisioning Technical Documentation.- The format and procedures for preparation of the provisioning technical documentation shall be as prescribed in this specification. Provisioning technical documentation to be provided by the contractor shall include only those items from the tabulation below specifically required by the contract or order:

- (a) Provisioning Parts List, paragraph 3.6.
- (b) Numerical Parts List, paragraph 3.8.
- (c) Long Lead-Time Item List, paragraph 3.9.
- (d) Item Identification/Item Logistics Data Record paragraph 3.10.
- (e) Master Patterns and Plan Views of Parts Layout paragraph 3.11.
- (f) Soft Consumable Items List, paragraph 3.12.1.
- (g) Test Equipment List and Characteristics Data, paragraph 3.13.1.
- (h) Tool List, paragraph 3.14.1.
- (i) Program Data for ROMS/PROMS, paragraph 3.16.
- (j) Drawings, paragraph 3.15.
- (k) Installation Materiel List, paragraph 3.17.
- (l) On-Site Spares List, paragraph 3.19.
- (m) Provisioning Screening Data, paragraph 3.20.

3.5 Provisioning Technical Documentation to be provided.- Provisioning technical documentation required by the contract or order shall be provided in accordance with the following paragraphs.

3.6 Provisioning Parts List.- When specifically required by the contract or order, the contractor shall provide a Provisioning Parts List prepared in accordance with Figure 1. Detailed instructions for insertion of data in standardized format are provided in Paragraph 3.21.

3.6.1 Items to be listed.- The Provisioning Parts List shall include items used in the end article except (1) standard mechanical hardware, such as nuts, bolts, screws and washers, (2) structural parts not subject to wear-out or failure, such as frames, chassis panels stiffeners and ancillary and structural elements which are non-functional from the standpoint of the purpose of the parent equipment, and (3) standard cable and wire. Antenna structural members and cable assemblies are to be listed.

3.7 Listing Printed Circuit Items.- Printed circuit assemblies or circuit card assemblies, printed circuit boards and printed wiring assemblies, as defined in MIL-STD-429, completely assembled and ready to be plugged in or wired in, shall be treated as assemblies and listed in their proper top-down breakdown sequence. The top-down breakdown shall be listed the first time the assembly appears on the provisioning parts list and shall include: (1) the complete assembly, (2) the printed wiring board or printed circuit board with printed components so identified, and (3) the separately manufactured, discrete parts mounted thereon. Each complete assembly, with top-down breakdown, shall be listed only one time on the parts list. Identical assemblies shall subsequently be listed as reference items.

3.8 Numerical Parts List.- When specifically required by the contract or order, the contractor shall provide a Numerical Parts List which shall list in alpha-numeric sequence all item identifying numbers appearing on the Provisioning Parts List. Commercial hardware and other items to which part numbers have not been assigned shall be listed in sequence, considering the identifying noun as the part number.

3.8.1 Preparation of the Numerical Parts List.- The provisioning format, Figure 1 and the preparation instructions, paragraph 3.21, shall be used in preparing the Numerical Parts List. However, only the following data elements need be included. The listing shall be in alpha-numeric sequence by part number.

- (a) Manufacturers part number and Prime Contractors part number. Where both part numbers are reflected in the Provisioning Parts List (PPL), in accordance with paragraphs 3.21.4.5 and 3.21.4.17 of this specification, each part number shall be listed in the appropriate alpha-numeric sequence of the manufacturers part number with the prime contractors part number listed immediately below the corresponding manufacturers part number.
- (b) Manufacturers code for each part number reflected.
- (c) Item Name
- (d) Item or Sequence No.
- (e) Quantity Per End Article.
- (f) Reference symbols shall be reflected in block 3 of the Numerical Parts List for part numbers shown in block 17 of the PPL. Reference symbols shall reflect all locations for each part, whether or not those locations are listed in the PPL. Where additional space is required to list all reference symbols, block 14 may be used. Should yet additional space be needed, continue on succeeding lines in block 3 and 14. Sequential reference symbols may be grouped and denoted as the first symbol through the last of the series, for example, A46 through A99.
- (g) Unit Price

3.9 Long Lead-Time Items List.- When specifically required by the contract or order, the contractor shall provide, as soon as developed, notwithstanding the complete submission requirements of 3.3.1, a list of those items, parts-peculiar and parts common, having a long lead-time procurement cycle which, if not ordered early in the end article production cycle, may preclude delivery of such items concurrent with the delivery or acceptance date of the initial end article. The FAA will advise the contractor within 45 days after receipt of the Long Lead-time Items List whether or not any of the items are required. These items shall also be listed in their regular position in the top-down breakdown in the Provisioning Parts List and identified in Block 21, see paragraph 3.21.4.22, as having been previously submitted to the FAA on the Long Lead-Time Items List.

3.9.1 Preparation of the Long Lead-Time Item List.- The Provisioning Parts List Format, Figure 1, and the preparation instructions, Paragraph 3.21, shall be used in preparing the Long Lead-Time Item List to the extent delivery schedules permit. However, if in the opinion of the contractor more expeditious action is essential, the list of long lead-time items may be provided in any appropriate format. However, in either instance, those items meeting the criteria of part-peculiar shall be clearly identified as such. Sufficient technical data such as electrical and physical description, population and available drawings shall be provided with the list to enable the FAA to fully identify and provision the item or items.

3.10 Item Identifications or Item Logistics Data Records.- When specifically required by the contract or order, the contractor shall furnish Item Identification or Item Logistics Data Records in accordance with FED-STD-No.5 for each item on the Provisioning List for which the FAA states a requirement.

3.10.1 Requirements for Item Identifications (ILs) or Item Logistics Data Records (ILDRs).- Requirements for ILs or ILDRs on specific items contained in the provisioning lists will usually be made known to the contractor within 90 calendar days following FAA acceptance of the Provisioning Parts List (PPL) and provisioning screening results obtained by the contractor from the Defence Logistics Services Center (DLSC) or, if provisioning screening is not required, following FAA acceptance or the PPL. However, the contractor shall provide all IIs or ILDRs ordered any time during the life of the contract or order.

3.11 Master Pattern and Plan View of Parts Layout.- When specifically required by the contract or order, the contractor shall provide master patterns and copies of a plan view of the parts layout for each printed board, for example, printed-circuit assembly or circuit card assembly, printed-circuit board and printed-circuit assembly. In accordance with MIL-STD-275, the master pattern shall be as defined by MIL-STD-429 and shall be supplied on stable base photographic film in accordance with MIL-D-8510 Type II, or L-F-340, Film, Photographic, Type I, sub-type A, Class 2, Style 1A, 0.0073 thick. The plan view of each parts-mounting side of each printed board, for example, printed-circuit assembly or circuit card assembly, printed-circuit boards and printed-wiring assembly, as defined in MIL-STD-429, shall show all of the parts mounted on that side. However, where 90% or more of the parts are all on one side, that side alone may be pictured, if clarity can be maintained, with the parts on the reverse side phantomd or outlined thereon using short dash lines, or, at the option of the contractor, a separate plan view of the reverse side may be provided. Conductive patterns may appear but are not required to be shown in these views. Reference designations shall be shown on or for each part, using call-out lines where necessary. The illustration may be a line drawing, a marked photograph, or a combination thereof, at the option of the contractor.

3.12 Soft Consumable Items.- Soft consumable items, as defined herein, shall be listed in that section of the Provisioning Parts List pertaining to the equipment unit to which applicable.

3.12.1 Soft Consumable Items List.- When specifically required by the contract or order, the contractor shall also provide a separate listing of the soft consumable items required in the installation, maintenance, repair, adjusting and calibration of the end article and associated test equipment.

3.12.2 Preparation of the Soft Consumable Items List.- The Soft Consumable Items List shall be prepared in the same format and in accordance with the instructions provided for the preparation of the Provisioning Parts List. However, only Blocks 1, 4, 16, 17 and 20 need be completed. Use the same Item or Sequence Number shown on the Provisioning Parts List for the first appearance.

3.13 Test Equipment.- All test equipment furnished with the end article, whether installed or ancillary, whether contractor or vendor designed or common test equipment commercially available, shall be listed in their proper top-down breakdown sequence in the Provisioning Parts List and show the units, assemblies, subassemblies and parts in the same top-down breakdown required for the other elements of the end article.

3.13.1 Test Equipment List and Characteristics Data.- When specifically required by the contract or order, the Contractor shall also provide a complete list of all suggested test equipment and related accessories necessary for the installation, maintenance, alignment and performance testing of the end article regardless of whether or not the test equipment is being furnished by the contractor. The shall include all measurement capabilities required to maintain the supplied end article and recommend the test equipment to be used for each measurement. These required accuracies stated in engineering units. This information shall be subdivided by group, set system or a combination thereof, where those units located within the same room or building are listed together.

3.13.2 Preparation of the Test Equipment List and Characteristics Data.- The Test Equipment List shall be prepared in the same format and in accordance with the instructions provided for the preparation of Provisioning Parts Lists, Paragraph 3.21 and Figure 1. However, only Blocks 4, 16, 17 and 20 need be completed. The Test Equipment Characteristics Data shall include the information requested in 3.13.1 formatted as appropriate.

3.13.3 Test Equipment Specification and Drawings.- The contractor shall furnish a copy of the commercial or industry specification or standard which completely identifies the test equipment, including the physical, mechanical, electrical and dimensional characteristics for recommended commercially available test equipment. For special test equipment, that is commercial test equipment modified by the contractor, or test equipment specifically designed for use with the end article, the contractor shall furnish assembly and general arrangement drawings and schematic drawings which will indicate the location and function of each item listed on the applicable documentation lists.

3.14 Special Tools.- All special tools shall be included in that section of the Provisioning Parts List pertaining to the item to which applicable. If a special tool is applicable to more than one item, subsequent appearances shall be indicated by printing the letters REF in Block 6, 7, or 8, as appropriate.

3.14.1 Tool List.- When specifically required by the contract or order, the contractor shall also provide a complete list of all tools, special and common, required for the installation, maintenance, and repair of the end article.

3.14.2 Preparation of the Tool List.- The Tool List shall be prepared in the same format and in accordance with the instructions provided for the preparation of the Provisioning Parts List. However, only Blocks 4, 16, 17, and 20 need be completed.

3.15. Drawings.- The contractor shall provide two copies of each reproducible engineering drawing on microfilm aperture cards for each item listed in any provisioning list that meets the definition of (a) a part-peculiar, or (b) a reparable item. Drawings to be provided shall, at a minimum, be in accordance with the requirements of DOD-STD-100 and DOD-D-1000, Level 3. One set of aperture cards shall contain microfilm images in accordance with MIL-M-9868, Type I, Class I, or Type II, Class 2; kind N. Duplicate copy sets shall be in accordance with MIL-C-9949, Type II, Class 2. The microfilm shall be mounted on aperture cards in accordance with the requirements of MIL-C-9877. All aperture cards shall have a format and coding as specified in MIL-STD-804.

The contractor shall provide all production line test procedures in accordance with DOD-D-1000, Paragraph 3.3.3.1. This may be furnished in the format used by the contractor.

3.16 Program Data for Read Only Memories (ROMs) and Programmable Read Only Memories (PROMs)- The contractor shall provide documentation to reflect the digital information content of all firmware devices designed into the hardware. The contractor shall supply assembly language source listings including comments of all software designed to operate with the hardware. The contractor shall also provide specifications, or special screening, requirements if such were used to acquire the firmware devices.

Documentation shall consist of hard copy listings of the following: (a) assembly language source listings (b) listings in hexadecimal format of digital data for each firmware device. Documentation shall also consist of a master of each digital memory storage device, ROM, PROM, EPROM. Each listing or memory storage device shall be identified by a hard copy label which identifies the firmware device by manufacturer's part number, the contractor's assigned part number, circuit symbol and function program revision level and date.

The contractor shall identify all hardware and software used to develop and install digital information in firmware devices during the system design and manufacturing.

3.17 Installation Materiel List.- When specifically required by the contract or order, the contractor shall provide, in provisioning list format with appropriate header data, see paragraph 3.21.3, a listing of all items being provided by the contractor for the installation of the end article. This shall include cable, hardware, fittings, connectors, tubing and insulation.

3.17.1 Preparation of the Installation Materiel List.- All data elements required to fully identify the items in the installation kit shall be included on this list which shall be prepared in accordance with the standard provisioning format, Figure 1, and preparation instructions, paragraph 3.21.

3.18 Repair Kits.- The contractor shall include on the Provisioning Parts List, as a kit, those items that good field maintenance practice requires be replaced in one maintenance or overhaul operation. These Kits shall be given an appropriate item name and must be broken down on the Provisioning List. The kit shall be listed as a subassembly of the assembly or unit it repairs and the contents of the kit listed thereunder.

3.19 On-Site Spares List.- When site spares are specifically required by the contract or order, the contractor shall provide an on-site spares list in the format shown in Figure 2.

3.19.1 Header Data for On-Site Spares List.-

<u>Data Element</u>	<u>Comment</u>
Item or Sequence Number	The number is that assigned in the provisioning parts list for that particular line item, see paragraph 3.21.4.1.
Manufacturer's Part Number	As assigned in the PPL, see paragraph 3.21.4.5.
Item Name	As assigned in the PPL, see paragraph 3.21.4.4.
Location	Enter place name destination and quantity of each item allocated for stockage on site with the equipment to be supported.

3.20 Provisioning Screening.- When provisioning screening data is required by the contract or order, Military Specification MIL-P-84000, Provisioning Screening Data to be Furnished by Government Suppliers, shall be applicable. The following instructions shall have precedence over any conflicting portions of MIL-P-84000 unless otherwise specified:

- (a) All items on the Provisioning Lists are to be submitted to the Defense Logistics Service Center (DLSC) for initial provisioning screening.
- (b) Item of supply concept screening shall apply.
- (c) Submission of provisioning screening requests to DLSC by the contractor shall be scheduled to assure contractor delivery of the screening results to the Federal Aviation Administration (FAA) concurrent with the specified contractual delivery date of the Provisioning Lists. Scheduling criteria shall be mailing time from contractor's plant and return plus 7 calendar days DLSC processing time.
- (d) Unless otherwise specified in the contract or order, screening results shall not be included in the contractor prepared provisioning lists nor shall a machine listing of the screening results be provided. Following receipt of the screening results from DLSC and the correction of all data that may have been rejected by DLSC, the contractor shall forward the interpreted Electrical Accounting Machine (EAM) cards or tapes to: Federal Aviation Administration, Aeronautical Center, FAA Depot, Attention: AAC-490, P.O. Box 25082, Oklahoma City, Oklahoma 73125.
- (e) Any of the types of media specified in MIL-P-84000 may be used to submit data to DLSC for screening, however, the use of manual screening requests must be authorized by the FAA.
- (f) The contractor's request to the FAA, at the above address, for transaction and destination codes, in accordance with MIL-P-84000, shall also state the media, tape, card or manual, that the contractor plans to use.
- (g) Submission of screening data shall be via mail to:

Commander  
Defense Logistics Services Center  
Directorate of Logistics Data Management  
Attn: DLSC-TD, Provisioning and Other Preprocurement Screening  
Federal Center  
Battle Creek, Michigan 49016

3.20.1 Use of Screening Results.- The screening results will be used by FAA to determine specific requirements for Item Identification or Item Logistics Data Records which shall be furnished by the contractor when specified in the contract or order.

3.21 Preparation of Provisioning Documentation.- The detailed preparation shall be in accordance with the requirements prescribed herein. Figure 1 illustrates the standard provisioning format that shall be used for both manually and mechanically prepared provisioning lists. This one format shall be used by all contractors for the preparation of provisioning lists and for all other listings required by the contract or order, except the On-Site Spares List which will be prepared in accordance with paragraph 3.19 and Figure 2.

3.21.1 Manually and Mechanically Prepared Provisioning List.- Unless otherwise specified by the contract or order, both manually and mechanically prepared provisioning lists shall be prepared in accordance with the following instructions and shall conform to the format illustrated in Figure 1. A minimum of three lines of space shall be used to separate line items of information. For this purpose line items are defined as all data required to be provided with each item sequence number. Copies of the provisioning lists shall be legible and be prepared on durable white paper that will accept ink, pencil, or typewriter insertions. Only one side of a page shall be used. The number of copies required is shown in Table 1. Manually prepared forms shall be typed using pica or elite size type. Mechanically prepared forms shall be burst and assembled in consecutive order. Reproduced copies shall conform to the size limitations as stated in 3.21.2.

3.21.2 Size.- Page size shall be not less than 8-1/2 inches in length by 11 inches in width, nor more than 11 inches in length by 17 inches in width.

3.21.2.1 Binding.- Each copy of the provisioning documentation lists shall be securely bound at the top center of the document by a suitable removable fastener. The format shall be arranged so that data will not be obscured on the top margin of any page of the document. The lists shall be protected by a suitable cover stock on both top and bottom.

3.21.2.2 Markings.- The front cover of each provisioning list shall include the following information:

- (a) The manufacturer's end article model designation or Federal Aviation Administration nomenclature, as applicable.
- (b) The contractor's name.
- (c) The contract number.

- (d) Type of list, for example, provisioning parts list, revision, long lead-time item list.
- (e) Total number of pages within each Provisioning List. If more than one volume for one list show: Page \_\_\_\_\_ thru \_\_\_\_\_ of \_\_\_\_\_ pages.
- (f) Volume number. Volume \_\_\_\_\_ of \_\_\_\_\_ Volumes.
- (g) Security classification.

3.21.2.3 Volume Marking.- If more than one volume is required, each volume shall be marked as in 3.21.2.2 and each volume numbered consecutively.

3.21.2.4 Arrangements of Item in the Provisioning Parts List.- Items shall be arranged in top-down breakdown sequence. Parts will be shown in relation to the subassembly in which they are used, for example, subassemblies in relation to assemblies, assemblies to unit, units to groups. When modules consist of one or more PCB's either plug-in or hard wired, the top-down breakdown policy shall apply and the modules shall be treated as assemblies, and the the PCBs shall be treated as subassemblies. This relationship is shown by means of the indenture letter, see paragraph 3.21.4.2. The indenture letter assigned to a part indicates that it is either associated with, contained in, or part of the preceding part identified with an indenture letter of the preceding alpha character.

3.21.2.5 Item or Sequence Numbers.- The item or sequence numbers on each provisioning list shall be consecutively assigned unless otherwise specified.

3.21.2.6 Page Numbers.- The page numbers within each different provisioning list shall be consecutively assigned.

3.21.3 Header Data for Standard Format.- The contractor shall insert the appropriate title of the lists in the upper center of each page of the standard format, and will provide the following data on the bottom lines of each page:

<u>Data Element</u>	<u>Comment</u>
Contract Number	Self-explanatory.
Nomenclature	Insert name of end article being provisioned and contractor's provisioning control number.

3.21.3 Header Data for Standard Format.- (Cont'd)

<u>Data Element</u>	<u>Comment</u>
Model or Type Number	Self-explanatory.
Contractor	Insert prime contractor's name.
Date of List	Insert preparation cut-off date.
Revision	Used only for revisions after initial preparation. Revisions should be lettered serially commencing with the letter A. Insert the date of the revision after the serial letter.
Page Number	Self-explanatory.
Security Classification	Self-explanatory.

3.21.4 Data Elements.- The standard provisioning list format contains 22 data elements, or blocks, of provisioning technical data. The location of each element of data is fixed and the digital limitations are specified. In no case shall the digital limitations be exceeded. The Block No. referred to in the following paragraphs locates the columnar position of each data element on the standard provisioning list format. The standard format consists of two lines of data for each line item of the provisioning list. The first line contains blocks 1 through 12, and the second line, blocks 13 through 22, see Figure 1.

3.21.4.1 Block 1, Item or Sequence Number, 6 digits.- This block is used for sequential line item control, commencing with the first line item on the listing and continuing alpha-numerically to the last line item entry of the listing. The first four positions of the Item or Sequence Number shall be for alpha-numeric sequential control of line items on the list and shall be constructed as follows:

- (a) The first, second, and third positions may be either alpha (A) or Numeric (N) beginning with A or O in ascending order excluding alpha characters I and O. The fourth position shall always be a numeric digit beginning with 1. However, the item or sequence number shall be constructed within one of the following options:

3.21.4.1 Block 1, Item or Sequence Number, 6 digits.- (Cont'd)

Card Columns.....	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>Number of Items.</u>
Options.....	N	N	N	N	less than 10,000
	A	N	N	N	10,000 to 23,976
	A	A	N	N	23,977 to 57,024
	A	A	A	N	57,025 to 124,416

- (b) The contractor may select the option but once an option is selected it must remain constant in any one provisioning list.

3.21.4.1.1 Changes to the Item or Sequence Number.- The fifth and sixth digits shall be used to indicate additions, modification, deletions, and to identify typographical and quantity changes to the initial assignment of the Item or Sequence Numbers. Alpha characters I and O shall not be used.

- (a) Additions.- The fifth digit shall be used to indicate additions to the list. For this purpose, the letters A through Z, except D, M, Q, and T, inclusive, and the numbers 1 through 9 inclusive, shall be used. An item entry, identified by a letter in the fifth digit of Block 1, is sequenced for inserting new items in the provisioning list and will be used for regular additions or replacing items.
- (b) Deletions of Modifications.- The sixth digit in Block 1 shall be used to indicate deletions, modifications, typographical errors and quantity changes. A deleted item shall be indicated by a D in the sixth digit and is required to identify items shown on the provisioning lists which were never used in the production equipment or were completely removed from the production equipment during subsequent production. A modified item shall be indicated by an M in the sixth digit of Block 1 and is required if a change occurs to the prime contractor's part number, federal manufacturer's code, manufacturer's part number, or item name. The letter T shall be entered in the sixth digit of Block 1 if a change is required to correct a typographical error. Quantity changes to Blocks 6,7, or 8 shall be indicated by entering the letter Q in the sixth digit of Block 1.

3.21.4.1.2 Examples of Item or Sequence Numbers.-

<u>Digits Allocated for Block No.1</u>						<u>Explanation</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	
A	1	2	0			Item as originally listed.

3.21.4.1.2 Examples of Item or Sequence Numbers.- (Cont'd)

<u>Digits Allocated for Block No.1</u>						<u>Explanation</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	
A	1	2	0	A		First addition between item Nos. A120 and A121.
A	1	2	0	B		Second addition between item Nos. A120 and A121.
A	1	2	0	C	M	Third addition between item Nos. A120 and A121 which has been subsequently modified.
A	1	2	1			Items originally listed.
A	1	2	2		M	Modified item.
A	1	2	4		D	Deleted item.
A	1	2	4		T	Typographical error.
A	1	2	5		Q	Quantity adjustment.

3.21.4.2 Block 2, Indenture No., 1 digit.- This block is used to show the top-down breakdown. A letter shall be inserted in this block to indicate the relationship of the line item to the end article. Alpha characters I and O will not be used. The end article, at whatever level it may be, system, set, group, unit, is always indicated by indenture A. All other items are then indent-related to the end article.

<u>Block 2 Entry</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>
A									
B									
C									
D									
E									
F									
G									
E									
F									
D									
E									

System

. Set

. . Group

. . . Unit

. . . . Assembly

. . . . . Subassembly

. . . . . . Part

. . . . . Assembly

. . . . . Part

. . . . Unit

. . . . . Part

3.21.4.3 Block 3, Reference Symbol No. or Figure-Index No., 19 digits.- Unless otherwise specified, the contractor shall leave this block blank.

3.21.4.4 Block 4, Item Name, 15 digits.- The item name, as contained in and defined by Handbook H6 shall be inserted in this block. When an applicable item name is not contained in Handbook H6, the contractor shall assign a name to the item. Contractor assigned names are subject to review by the FAA and DLSC to assure adherence to Federal Supply Catalog standards. Abbreviations, if needed, will be in accordance with MIL-STD-12C.

3.21.4.5 Block 5, Prime Contractor's Part No. and Long Part No. Code, 16 and 1 digit respectively.- This block is used exclusively to indicate the prime contractor's part, drawing or catalog number assigned to the item listed in the parts list, if different from the manufacturer's part number, see Block 17. Block 5 should be left blank if the part number assigned is the same as that contained in Block 17. Block 5 allocates 16 digits to a part number.

- (a) When the part number exceeds 16 digits, long part number codes will be assigned and both the part number and the long part number code A will be entered in Block 5. The overflow portion of the part number and the long part number code B will be entered directly below Block 17, and below any overflow long manufacturer's part numbers. The letter P, indicating the prime contractor's part number, will be printed in the same line as the overflow part number in the first number position in Block 16, Federal Manufacturer's Code. A new line will be required for each 16 digit increment of a part number.
- (b) The prime contractor's part number shall be entered only on the first appearance of an item in the provisioning parts list. No line item shall be listed more than once in any one unit, as defined herein, regardless of the number of times used. For subsequent appearances of the same item on the provisioning parts list, in another equipment unit, as defined herein, the words Same as, one time only, followed by the item or sequence number assigned to the line item on its first appearance shall be printed in Block 5. When an item, that is a unit, assembly or subassembly, is listed as Same as, the top-down breakdown covering the subordinate items shall not be continued. Example: for a printed-circuit board, when the complete board is listed as Same as, the items mounted thereon shall not be listed.

3.21.4.6 Block 6, Quantity Per Assembly, 4 digits.- The contractor shall insert a figure indicating the total number of times that the item is used in the assembly of which it is a part. A figure should only be entered for the first appearance of the item in the assembly. Subsequent use of the item in the same assembly shall not be indicated.

3.21.4.7 Block 7, Quantity Per Unit, 4 digits.- The contractor shall insert a figure indicating the number of times the item is used in the unit, as defined herein, of which it is a part. A figure should be entered only for the first appearance of the item in the unit. Subsequent use of the item in the same unit shall not be indicated.

3.21.4.8 Block 8, Quantity Per End Article, 4 digits.- The contractor shall insert a figure indicating the number of times the item is used in the end article. A figure should only be entered for the first appearance of the item in the end article.

3.21.4.9 Block 9, Shelf-Life, 3 digits.- In this block the contractor shall insert a number to indicate the expected shelf-life in number of months. This number indicates that the item has certain physical and material characteristics which limit its storage or shelf-life. It is used as a guide by the FAA for assuring that such items are not procured to meet requirements in excess of the shelf-life of an item, for example, 12 months of stock procured for an item having a shelf-life of six months. If the shelf-life of the item is indefinite that is, unlimited under reasonable care, the letters IND should be inserted in this column.

3.21.4.10 Block 10, Total Quantity Recommended or Ordered, 6 digits.- Unless otherwise specified, the contractor shall leave this block blank.

3.21.4.11 Block 11, Unit price, 11 digits.- The contractor shall enter either the proposed price or the best estimated price for each item. Proposed prices shall be identified by a suffix letter P and estimated prices by a suffix letter E. The price shall be determined by consideration of concurrent fabrication or procurement for both production and provisioning requirements. A decimal point will be used to divide dollars from cents.

3.21.4.12 Block 12, Extended Unit Price, 12 digits.- Unless otherwise specified, the contractor shall leave this block blank.

3.21.4.13 Block 13, Source, Maintenance and Recoverability (SM&R) Codes, 6 digits.- Unless otherwise specified, the contractor shall leave this block blank.

3.21.4.14 Block 14, National Stock Number, 19 digits.- Unless otherwise specified, the contractor shall leave this block blank.

3.21.4.15 Block 15, Item and Lot Number, 4 digits.- Unless otherwise specified, the contractor shall leave this block blank.

3.21.4.16 Block 16, Federal Supply Code for Manufacturer's, 5 digits.- The contractor shall insert the 5 digit Federal Supply Code for Manufacturer's (FSCM) to identify the actual manufacturer, or typical manufacturer, including the FSCM of Government Standards, Military Standards and Military Specifications, for the part number entered in Block 17. The manufacturer's code shall be obtained from the Federal Handbook H4-1 and H4-2. The data for Block 16 shall be printed at the extreme right of the applicable column in the standard provisioning format. The contractor shall provide a table of manufacturers' name, addresses and FSCMs, which shall be located at the end of the provisioning parts list. The table shall be in numerical order of the FSCM.

3.21.4.17 Block 17, Manufacturer's Part Number and Long Part Number Code, 16 digits and 1 digit respectively.- This block is used exclusively to indicate the actual manufacturer's part, drawing, model, type or catalog number assigned to the item in the parts list. For purposes of this block, the manufacturer is the company or Government activity exercising design control over the item. If more than one source of supply is used by the contractor in the production of the end article for a given line item in the parts list, the contractor need only enter a typical manufacturer's part number in this block. However, the contractor shall be consistent in the use of a typical manufacturer throughout the parts list. Where the line item is identified by a Government specification, drawing or standard number, for example, FED, MIL, JAN, AN, which completely identifies the item, this number is the preferred number and must be furnished in this block. If the Government specification or standard number does not fully identify the item, the manufacturer's number should be used. When the part number is 16 digits or less, the long part number code field will be left blank.

- (a) When the part number exceeds 16 digits, long part number codes will be assigned and both the part number and the long part number code A will be entered in Block 17. The overflow portion of the part number and the long part number code B will be entered directly below Block 17. The letter M, indicating the Manufacturer's Part Number, will be printed in the same line as the overflow part number in the first number position in Block 16, Federal Manufacturer's Code. A new line will be required for each 16 digit increment of a part number.

3.21.4.18 Block 18, Recommended Maintenance Factor, 4 digits.- The contractor shall enter in this block a symbol representing the rate at which the part-numbered item, Block 17, is expected to fail and require removal and repair or replacement. The maintenance factor shall be developed on the basis of normal operating conditions, that is, power on and performing its intended functions in the intended environment and the best available information, for example, reliability analysis data, vendor estimates or mandatory removal recommendations. Attaching hardware shall not be considered.

- (a) If the requirements of MIL-STD-470 or MIL-STD-785 are included in the contract or order and maintainability analysis data or information has been prepared by the contractor as prescribed therein, the contractor shall use such data or information for preparation of the provisioning technical documentation. However, the preparation and submission of the provisioning documentation shall not be delayed specifically for incorporating maintainability analysis data or information.
- (b) The maintenance factor shall be expressed as whole number, or zero, and two decimal places. The computation shall be made to three decimal places then rounded off the nearest two decimal places. Not to be shown is the decimal point which will be assumed to be between the first and second digits, 0.00. Where more than one identical item is used in an equipment unit, the maintenance factor shall be an average of the total in-use quantity.
- (c) In computing the maintenance factor the contractor shall select one of three available program units to obtain a meaningful entry for items which may range from those having a high removal rate to items having a low removal rate: program unit A for 1,000 operating hours, program unit B for 10,000 operating hours and program unit C for 100,000 operating hours. The code letter A, B or C shall be entered in the fourth position, for example, 000A, 000B or 000C.
- (d) EXAMPLES:

- 1 Assume an item predicted to fail after 8,000 hours of operation. Use the program unit A and compute the maintenance factor.

1,000 hours, Program Unit A = 013A maintenance factor  
8,000 hours, Operating Time

- 2 Assume an item predicted to fail after 18,000 hours of operation. Use the program unit B and compute the maintenance factor.

3.21.4.18 Block 18, Recommended Maintenance Factor, 4 digits.- (Cont'd)

10,000 hours, Program Unit B = 056B maintenance factor  
1,500,000 hours, Operating Time

- 3 Assume an item predicted to fail after 1,500,000 hours of operation. Use the program unit C and compute the maintenance factor.

100,000 hours, Program unit C = 007C maintenance factor  
1,500,000 hours, Operating Time

- 4 Assuming two identical items serving different functions within the same equipment that have different operating time of 20,000 hours and 90,000 hours, selection of the program unit B and averaging the operating times provides the following maintenance factor.

10,000 hours, Program unit B = 018B maintenance factor  
55,000 hours, Average Operating Time

- (e) Application of the maintenance factor will be accomplished by the FAA based upon the supply support determined appropriate to the maintenance objectives of the specific and article.

3.21.4.19 Block 19, Recommend Overhaul Factor, 4 digits. - The contractor shall insert in this block, where applicable, a recommended replacement interval, computed in accordance, a recommended replacement interval, computed in accordance with 3.21.4.18 on a program unit basis, for those reparable items susceptible to periodic maintenance replacement for overhaul purposes before derogation of function or failure occurs. To be considered are those items, usually mechanical, for which, due to the nature of their design, there can be forecasted time-in-use limits beyond which the probability of failure will increase. Typical of such items are radar antenna pedestals, goniometers and aircraft engines.

3.21.4.20 Block 20, Usable on Code, 4 digits. - If an item used has only limited application, the contractor shall enter an alphabetic code in this block to indicate the applicability of the line item to the next higher assembly, or unit, or to the end article. The code shall indicate the specific usability of the line item by citing the serial, type or model number of the end article. This code shall be explained in the front page of the provisioning list or, if the contractor desires, in the Remark column of the form. As an alternate use for this block, and when directed by the contract or order, the contractor shall enter an alphabetic code to indicate the configuration of the end article if the end article was procured under a variable nomenclature, basic equipment with variations as to quantity or combination of units.

3.21.4.21 Block 21, Optional, 9 digits.- This block shall be used to identify reparable items, long lead-time items, parts-peculiar and, when applicable, the quantity of spare parts to be furnished in accordance with the programmed, preselection, method of provisioning, as follows:

- (a) The contractor shall post in the first position at the left side of the block the letter R for those items meeting the defined criteria for a reparable item.
- (b) In the third position, counting from the left side of the block, the contractor shall insert the letter L to identify long lead time items, see paragraph 3.1.12.
- (c) In the fifth position, counting from the left side of the block, the contractor shall insert the letter X for those items meeting the definition of part-peculiar.
- (d) When the programmed or preselection method of initial provisioning is applicable to the contract or order, which requires the contractor to provide a quantity of spare parts-peculiar based upon a predetermined percentage or quantitative factor, the contractor shall post, always starting in the seventh position from the left side of the block, the quantity of the item to be provided.

3.21.4.22 Block 22, Spares Allocation, 25 digits.- The first six positions of this block shall reflect the total number of the item installed in equipment ordered on the contract. This quantity shall exclude the parts used in production of deliverable spares.

Example when all systems are identical in size and configuration:  
There are 67 equipments on a contract. The number of XYZ resistors per equipment, Block 8, is 32. The quantity to be included in Block 22 would be  $2144, 32 \text{ times } 67 = 2144$ .

Example when all systems are not identical in size and configuration:  
There are 3 configurations of equipments on the contract. The number XYZ resistors used in Printed Circuit Board (PCB) A is 2. PCB A is used one time in system configuration #1, two times in system configuration #2 and three times in system configuration #3. The quantity to be included in Block 22 is  $(2 \times 1 \times \text{number of configuration \#1 systems}) + (2 \times 2 \times \text{number of configuration \#2 systems}) + (3 \times 3 \times \text{number of configuration \#3 systems})$ .

3.21.4.23 Remarks Column.- The contractor shall enter in this column, as required, data that is considered pertinent to the line item entries in the parts list but cannot be described by the standard data blocks. This column shall also be used to indicate special data as specified in the contract or order.

3.21.5 Submission of Documentation Revisions.- Changes to the Provisioning Technical Documentation, after the initial documentation has been submitted and accepted by FAA, shall be forwarded not later than 30 days after a change is effected or approved. The number of copies and distribution of the revised documentation shall follow the original submission. The contractor shall be responsible for providing revised engineering drawings, program data for ROMS/PROMS and master patterns, as a result of engineering changes or modifications during the period covered by the contract or order.

3.21.5.1 Provisioning Technical Documentation Revision Sheets.- Revision sheets shall be in the format prescribed for the original document. These sheets shall completely replace the previous sheets on which the items was listed and to which the change occurred. This insert sheet shall contain all the previously correct data from the replaced sheet in addition to having the corrected data inserted in its proper location. When a change is such that a page-for-page replacement is not possible, the following shall apply:

- (a) When the revision requires inclusion of more pages than are being replaced, the first sheet of the revision shall retain the page number of the replaced page with subsequent pages of the revision bearing the same number with an ascending decimal suffix, for example, Page 79, Page 79.1, Page 79.2.
- (b) When the revision eliminates pages from the documentation, a page shall be provided for each page eliminated. The replacement page shall contain only that data specified in 3.21.3 and 3.21.4.1.1. The Remarks block on each sheet shall be appropriately annotated by the contractor to indicate the reason for the addition, deletion or modification.

3.21.5.2 Revised Provisioning Screening Data.- Provisioning screening results, when required by the contract or order, shall be acquired by the contractor for all new, modified or added items affected by a revision to provisioning documentation and submitted to FAA.

3.21.5.3 Provisioning of Revisions.- To ensure spares availability concurrent with the delivery or acceptance date of the initial end article, provisioning action required as a result of revisions shall be accomplished as expeditiously as possible. The contractor shall advise the FAA Depot, as soon as a revision is made, notwithstanding the requirements of 3.21.5, of any part-peculiar and long lead-time items involved.

#### 4. QUALITY ASSURANCE PROVISIONS.

4.1 Quality Control.- The contractor shall establish and maintain a quality control program acceptable to the Government. The Program shall be designed to assure compliance with all the requirements herein, and it shall be coordinated with all quality program requirements applicable to the contract. The quality control program shall be documented and submitted for Government approval, in accordance with contract requirements.

4.2 Completeness and Accuracy of the Documentation.- Unless otherwise specified in the contract, the contractor shall submit to the FAA Quality and Reliability Officer (QRO) for preliminary evaluation, all provisioning documentation which is to be final accepted by the Government at destination. Final inspection and acceptance of provisioning technical documentation will be accomplished at the destination, unless otherwise stated in the contract. Inaccurate, incomplete or faulty documentation will be cause for rejection and will result in return of the defective documentation to the contractor for corrective action. To increase assurance that the initial submission will be in compliance with the requirements of this specification, all documents and referenced data for materiel used by the contractor on a contract or order to which this specification is applicable shall be available for review by the FAA QRO and the FAA Technical Officer (TO). The contractor shall reference this specification in his contracts or purchase orders to suppliers, vendors and subcontractors and shall assure that the documentation they provide, including drawings, are complete and accurate and available in time for submission with the contractor's documentation.

4.2.1 Acceptance or Rejection of Documentation.- The FAA will review the provisioning technical documentation submitted by the contractor in accordance with the requirements and delivery schedule in the contract or order and advise the contractor of its acceptance or rejection within 30 calendar days following receipt. If errors, omissions, or other faults are determined and cause rejection, the time lost between FAA rejection and contractor resubmittal of acceptable documentation shall not be cause for extending the delivery schedule for other required documentation or spares. The contractor shall take immediate action to correct rejected documentation and resubmit an acceptable product within 30 calendar days from the date of the FAA rejection notice. Acceptance of the documentation will not relieve the contractor from the responsibility for submitting data concerning subsequent design and production changes made to the end article or for providing corrected or additional documentation if the FAA or contractor determines, during the provisioning process, that the documentation originally accepted was incorrect or incomplete.

4.3 Assistance in Documentation Preparation.- To secure assistance on specific technical problems concerning the provisioning technical documentation and related procedures, the contractor should communicate with the FAA Aeronautical Center, FA' Depot, Attn: AAC-480, P.O. Box 25082, Oklahoma City, Oklahoma 73125. The contractor shall immediately notify the FAA Contracting Officer and the FAA Depot regarding any foreseeable delay in meeting established documentation delivery schedules. Any refusal by a supplier, vendor or subcontractor to supply data, documentation or drawings to either the contractor or to the FAA will not relieve the contractor of his obligation to deliver documentation for that line item in the contract.

## 5. PREPARATION FOR DELIVERY.

5.1 Packing and Packaging.- Provisioning technical documentation will be packed to assure arrival at destination in satisfactory condition. Containers and wrapping will conform with the best commercial practices, unless otherwise specified in the contract.

5.2 Submittal of Provisioning Technical Documentation.- Documentation, as required by the contract or order, in the number of copies specified in Table 1, shall be distributed in accordance with the distribution instructions contained in Table 1.

5.3 Letter of Transmittal.- A letter of transmittal shall accompany the provisioning technical documentation identifying the materiel by contract or order and line item number and indicating technical documentation represents documentation covering the complete end article or whether a partial submittal or revision is being made. If partial submittals were previously made, a statement of completeness shall accompany the final increment of the provisioning technical documentation.

## 6. NOTES

6.1 Index.- The following index is provided as a matter of convenience for both parties and in no way increases nor derogates from the requirements of this specification.

6.2 Arrangement of Index.- The index is arranged alphabetically according to paragraph content, not necessarily by paragraph heading.

<u>Subject</u>	<u>Paragraph Numbers</u>
Data elements	3.21.4
Definitions	3.1

6.2 Arrangement of Index.- (Cont'd)

<u>Subject</u>	<u>Paragraph Numbers</u>
Distribution of documentation	5.2
Documentation preparation, assistance in	4.3
Documentation revisions, submission of	3.21.5
Drawings	3.15
Drawings for test equipment	3.13.3
Extended Unit Price	3.21.4.12
National Stock Numbers	3.21.4.14
Figure Index No.	3.21.4.3
Header data for standard provisioning format	3.21.3
Indenture No.	3.21.4.2
Installation Materiel List, preparation of	3.17.1
Item and Lot Number	3.21.4.15
Item Identifications	3.10
Item Logistics Data Records	3.10
Item Name	3.21.4.4
Items to be listed on Provisioning Parts List	3.6.1
Item or Sequence Number	3.21.4.1
Item or Sequence Number, changes to	3.21.4.1.1
Long Lead-Time Items List	3.9
Long Lead-Time item coding	3.21.4.21
Long Part Number Code, Prime Contractor	3.21.4.5
Long Part Number Code, Manufacturer	3.21.4.17

6.2 Arrangement of Index.- (Cont'd)

<u>Subject</u>	<u>Paragraph Numbers</u>
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Manufacturer's Part Number	3.21.4.17
Numerical Parts List	3.8
Overhaul Factor	3.21.4.19
Part-Peculiar item coding	3.21.4.21
Prime Contractor's Part No.	3.21.4.5
Printed circuit items	3.7
Program tapes for Read Only Memories (ROMs)/Programable Read Only Memories (PROMs)	3.16
Provisioning Lists	3.21
Preparation, manual and mechanical	3.21
Size	3.21.2
Binding	3.21.2.1
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Provisioning Screening, revised data	3.21.5.2
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6.2 Arrangement of Index.- (Cont'd)

<u>Subject</u>	<u>Paragraph Numbers</u>
Provisioning Technical Documentation, Checklist of	3.4
Provisioning Technical Documentation, accuracy of	4.2
Provisioning Technical Documentation requirements	3.2
Provisioning Technical Documentation, Requirements Conference	3.3.2
Provisioning Technical Documentation submittal of	5.2, 5.3
Quantity Per Assembly	3.21.4.6
Quantity Per End Article	3.21.4.8
Quantity Per Unit	3.21.4.7
Quantity Recommended or Ordered	3.21.4.10
Reference Symbol No.	3.21.4.3
Remarks Column	3.21.4.23
Repair Kits	3.18
Reparable Item Coding	3.21.4.21
Revisions, Provisioning for	3.21.5.3
Scheduling Documentation Delivery	3.3
Scheduling Documentation Submittals in Increments	3.3.1
Screening Cards, revision of	3.21.5.2
Shelf-Life	3.21.4.9
Soft Consumable Items List	3.12.1

6.2 Arrangement of Index.- (Cont'd)

<u>Subject</u>	<u>Paragraph Numbers</u>
Source, Maintenance and Recoverability (SM&R) Codes	3.21.4.13
Spares Allocation	3.21.4.22
On-Site Spares List	3.19
Spares to be provided	3.21.4.21
Submittal of Documentation	5.2, 5.3
Test Equipment	3.13
Test Equipment List	3.13.1
Test Equipment Specifications and Drawings	3.13.3
Tool List	3.14.1
Tools, special	3.14
Unit Price	3.21.4.11
Usable on Code	3.21.4.20

TABLE 1 - DOCUMENTATION DISTRIBUTION AND QUANTITY REQUIREMENTS

Item	Document	: Distribution and Quantity				
		: FAA	: AAC-	: AAC-	: AAC:	: QRO TOTAL
		: C.O.:	480	: 490	: 440:	
(a)	Provisioning Parts List, See 3.6	1	2	1	1	5
(b)	Numerical Parts List, See 3.8	1	2	1	1	5
(c)	Long Lead-Time Item List, See 3.9		2	1	1	4
(d)	Item Identification or Item Logistics Data Record, See 3.10			3		3
(e)	Master Patterns and Plan Views of Parts Layout, See 3.11				2	2
(f)	Soft Consumable Items List, 3.12.1	2*			1	3
(g)	Test Equipment List and Characteristics Data, See 3.13.1	2*		1	1	4
(h)	Tool List, See 3.14.1	2*		1	1	4
(i)	Program Data for ROMs/PROMs, 3.16				1 set	1 set
(j)	Drawings, 3.15				2 sets	2 sets
(k)	Installation Materiel List, 3.17	2*			1	3
(l)	On-Site Spares List, 3.19	2	2		1	5
(m)	Provisioning Screening Data, 3.20			1 set		1 set

Distribution: The above documentation, when required by the contractor or order, shall be distributed by the contractor to the following addresses in the quantity shown above:

FAA C.O. - FAA Contracting Officer

AAC-440, AAC-480 and AAC-490 - Federal Aviation Administration  
Aeronautical Center  
FAA Depot, Attn: AAC-440/480/490  
as appropriate  
P.O. Box 25082  
Oklahoma City, Oklahoma 73125

QRO - Contractor will retain for use of the FAA Quality and Reliability Officer (QRO) and for the FAA Technical Officer (T.O.)

- \* For delivery to program office  
 Office responsible for acceptance or rejection.

**FIGURE 1**

FIGURE 2 - FORMAT FOR ON-SITE SPARES LISTSITE SPATES LIST

Contract Number \_\_\_\_\_

Item or Sequence Number	: Manufacturer's: Part Number	: Item Name :	: Location :	: Location :	: etc. :
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3.21.4.1	3.21.4.17	3.21.4.4	List quantities at each location as determined by instructions contained in the contract.		
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Date Prepared: \_\_\_\_\_

EXAMPLE

Item or Sequence Number	: Manufacturer's: Part Number	: Item Name :	: Kansas City :	: Indianapolis :	: etc. :
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408	xyz	Circuit Card Assembly	3	4	8
472	abc	Transformer	1	-	2

Date Prepared: Feb. 6, 1979